

Name: _____ Date: _____

Practice Quiz: Sect 3.1

Part One: Writing about Equations (Complete sentences, algebraic terms required.)

1. What is the major goal of solving equations? _____

2. How do we show FAIRNESS when we solve equations? Use a COMPLETE SENTENCE and at least one ALGEBRAIC TERM.

3. Define inverse operations. Use a specific example to illustrate your definition.

Part Two: Solving Equations: Please SOLVE the following equations. You must JUSTIFY each step and CHECK your solution via substitution. **BOX your final answers!**

Steps	Justifications
4. $z + 3 = 12$	

Check:

Steps	Justifications
5. $9y + 3 = -78$	

Check:

Steps	Justifications
6. $-7(2a - 5) = 49$	

Check:

Steps	Justifications
7. $1/5y - 9 = -10$	

Check:

Part Three: Multiple Choice: Please write the CAPITAL LETTER of the correct answer in the blank provided. You may show your work in the extra space provided.

8. _____ What reason would you give for Step 2 in the solution of the following equation?

Step 1: $-\frac{g}{2} + 5 = -7$

Step 2: $-\frac{g}{2} + 5 - 5 = -7 - 5$

- A. Addition Property of Equality B. Subtraction Property of Equality
 C. Division Property of Equality D. Multiplication Property of Equality

9. _____ What reason would you give for Step 4 in the solution of the following equation?

Step 1: $\frac{3}{4}p + 5 = -1$

Step 2: $\frac{3}{4}p + 5 - 5 = -1 - 5$

Step 3: $\frac{3}{4}p = -6$

Step 4: $(\frac{4}{3})(\frac{3}{4})p = (\frac{4}{3})(-6)$

A. Multiplication Property of Equality B. Subtraction Property of Equality

C. Division Property of Equality D. Addition Property of Equality

10. _____ Solve $8x + 6 = 46$.

A. $x = 5$ B. $x = 3\frac{2}{7}$ C. $x = 23$ D. $x = 6\frac{1}{2}$
